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Office Action mailed November 3, 2006
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Listing of Claims:

This Listing of Claims replaces all the prior listings of claims.

1-40. (CANCELED)

41. (NEW) A method of determining an alteration in a human MSH5 gene, wherein said human MSH5 is encoded by SEQ ID No.: 1, the method comprising analyzing a biological sample for an alteration in the SEQ ID No.: 1.

42. (NEW) The method of claim 41, wherein the biological sample is selected from blood, tissue, serum, stool, urine, sputum, cerebrospinal fluid, supernatant from cell lysate and a eukaryotic cell sample.

43. (NEW) The method of claim 41, wherein the analyzing is performed using mRNA in the biological sample.

44. (NEW) The method of claim 41, wherein the analyzing is performed using DNA in the biological sample.

45. (NEW) The method of claim 41,wherein the biological sample is from an individual affected with cancer.

46. (NEW) The method of claim 41, wherein the biological specimen if from an individual affected with infertility.

47. (NEW) The method of claim 41, wherein the alteration is detected by measuring the level of expression.

48. (NEW) The method of claim 41, wherein the alteration is detected a pair of oligonucleotide primers that hybridize to SEQ ID NO:1 or SEQ ID NOs: 3-26 or 27-50.

49. (NEW)The method of claim 41, wherein the alteration is a functional alteration and wherein the alteration is tested for being a functional alteration by comparing the results obtained with the altered human MSH5 gene encoded by SEQ ID NO:1 or its expression product with a wild type control.

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